

ABSTRACT OF THE DISCLOSURE

A polarizing device includes: a polarizing iron core (13) facing to a specified number of permanent magnets (11) among plural unmagnetized permanent magnets (11) arranged at specified intervals circumferentially on a rotor (12); a first coil (15) wound at a position facing to a desired permanent magnet (11a) of the polarizing iron core (13); a pair of second coils (16) each arranged having a specified interval according to the first coil (15) circumferentially on the polarizing iron core (13) and whose direction of the flowing current is different from that of the first coil (15); and a power source (22) for supplying the current to the first and second coils (15, 16), and either of the permanent magnet (11a) and first coil (15) is relatively moved and each permanent magnet (11) is magnetized to form a magnetic pole in turn by the current fed from the power source (22).